

GP-303490

EXTERNAL ACTIVATION MECHANISM FOR PRESSURIZED FORMING CAVITY

ABSTRACT OF THE DISCLOSURE

A mechanical mechanism is disclosed for supplementing the action of a pressurized working gas in hot blow forming of a sheet material. Opposing complementary heated forming tools grip the sheet material and form a shaping surface on one side of the sheet and a gas pressure chamber on the other side. An internal complementary mechanical forming device is located inside the pressure chamber. The device is operated by an internal rotatable shaft supported through the chamber defining tool wall. The internal shaft is coupled outside the tool wall to an external shaft for external activation of the mechanical forming device. The external shaft and coupling are enclosed in a housing structure that provide a pressure seal, thrust support and thermal insulation for the external activation mechanism.